#16
129

Patent

Attorney's Docket No. 032266-003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

VON SCHAEWEN, Antje

Application No.: 09/591,466

Filed: June 9, 2000

For: Plant GntI sequences and the use thereof for the production of plants having reduced or lacking N-acetyl glucosaminyl transferase I (GntI) activity

Group Art Unit: 1655

Examiner: J. Goldberg

REPLY TO RESTRICTION REQUIREMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This reply is responsive to the Restriction Requirement mailed on August 16, 2001 for the above-identified patent application. A one (1) month petition for an extension of time accompanies this response, which is being filed on or before its current due date of October 16, 2001. In response to this Office Action, consideration of the following remarks is respectfully requested.

Election

As will be set forth in detail below, Applicant elects to prosecute the claims of Group I. At this time, Applicant elects *Solanum tuberosum* as an ultimate species. These elections are made with traverse.

REMARKS

Applicant respectfully requests that the restriction requirement be reconsidered in view of the following remarks. Claims 2, 3 and 31-48 are currently pending in this application.

Restriction Requirement:

The Examiner has imposed a restriction requirement on Claims 2, 3 and 31 - 48 as allegedly being drawn to one or more inventions. The Examiner has grouped the claims as follows:

Group I: Claims 2 - 3, 31-34, drawn to a method of producing glycoproteins, classified in class 800, subclass 288.

Group II: Claims 35 - 40, drawn to isolated DNA, DNA constructs and microorganisms transformed with DNA, classified in class 536, subclass 23.2.

Group III: Claims 41 - 42, drawn to proteins, classified in class 435, subclass 183.

Group IV: Claims 43 - 46, drawn to antigens and antibodies, classified in class 424, subclass 130.1.

Group V: Claims 47 - 48, drawn to transgenic plants, seeds reproduction material or part of a transgenic plant, classified in class 800, subclass 295.

In response to this restriction requirement, Applicant elects to prosecute the invention of Group I, Claims 2-3 and 31 - 34, drawn to a method of producing

glycoproteins. The non-elected claims are not being canceled at this time in light of the following traverse.

This restriction requirement is respectfully traversed. It is respectfully requested that the requirement be reconsidered and upon reconsideration that the claims in Groups I, II and V be examined together.

The Examiner's characterization of the claims in these three groups is correct. The claims in Groups I, II and V are more closely related than the characterization might suggest, however. The claims of Group I do relate to methods of preparing a glycoprotein. This method involves the use of a transgenic plant as claimed in Group V which has had its DNA modified as set forth in the claims of Group II specifically to enable it to produce these specific glycoproteins. The claims of Group II which are directed to the modified DNA and the claims of Group V which relate to the transgenic plant all recite the ultimate use of the DNA and plant to act in the method of Group I to produce the glycoprotein.

It is undisputed that the MPEP sets out that restriction CAN be imposed between a product and its use in a process when the Examiner can demonstrate that the product has other uses than in the claimed process. The Examiner's suggestion of using the modified DNA in aptamer screening processes, for example, or using the transgenic plants as feeds are showings of possible uses of these materials beyond the use in the claimed process. It is believed, however, that in this case these "other" unrelated and distant uses provide a very solid basis for deciding that restriction, while permissible, SHOULD NOT be imposed.

All three groups of claims define their covered subject matter in terms of producing these certain glycoproteins. If one were carrying out the process of the Group I claims to make these special glycoprotein he or she would be using the plants covered by the Group V claims. These plants would include the DNA of the Group II claims. Thus, if a claim from Group I were being infringed, claims from groups II and V would be infringed, as

well. This use is the real use one would make of these materials. The fact that it is possible to conjure up other less relevant uses should not control where the one specific use is mentioned in the claims of all three groups.

Similarly it is assumed that the Examiner will conduct essentially the same search when examining the claims in each of these three groups. It is assumed that when examining the claims of Group I, the Examiner will not be searching on the broad idea that a transgenic plant with modified DNA can express materials which differ from those expressed by an otherwise equivalent native plant. It is assumed that the examination will be centered on the expression of specific glycoproteins and the specific transgenic plants with their modified DNA provided expressly to lead to this expression. Identically, when examining the transgenic plants, the focus will be on the modifications in the modified DNA and the resulting activity of expressing the specific glycoprotein. It is not seen how an effective examination could be carried out on any of these three groups of claims without always considering all three aspects of this invention. Any art relevant to one group of claims should be considered with the other two groups as well.

There are only 14 claims in Groups I, II, and V. This is not an unduly burdensome number to consider at once. The only real effects to be seen by this restriction is that three identical examinations will need to be carried out by one, two or three examiners and that the Applicant will be forced to pay three filing fees, three issue fees and triple maintenance fees, not to mention multiple fees paid to her attorneys.

Thus, to sum up, it is respectfully requested that the claims in Groups I, II, and V be examined at this time.

Restriction Requirement Applicable to all Groups:

In addition the Examiner has required further restriction to one of three individual nucleotide sequences for each of the above mentioned groups stating

" The claims contain three individual, independent and distinct nucleotide sequences in alternative form. Accordingly, these claims are subject to restriction under 35 U.S.C. 121 as outlined in 1192 O.G. 68 (November 19, 1996)."

Applicant elects *Solanum tuberosum*, with traverse. The sequences represented by SEQ IDs 1, 3 and 5, encode for N-acetyl glucosaminyl transferase I . As outlined in 1192 O.G. 68 (November 19, 1996) "...nucleotide sequences encoding the same protein are not considered to be independent and distinct inventions and will continue to be examined together." On page 11 line 33-35 of the specification, Applicant states, "Moreover the invention relates to any DNA sequences, which represent a gene or are part of a gene encoding the enzyme N-acetyl glucosaminyl transferase I ...". The product of each of the DNA sequences represented by SEQ ID 1, 3, and 5 is 1, 2-N-acetyl glucosaminyl transferase I, as specified in the information section preceding each of the sequence listings. Figure 3B of Applicant's specification demonstrates the high degree of homology of the proteins expressed by SEQ IDs 1, 3 and 5. These three sequences of DNA may be, as the Examiner has pointed out, "structurally distinct chemical compounds", but they are very much related to one another.

Furthermore, even if the sequences did not express the same protein, the same notice 1192 O.G. 68 (November 19, 1996) allows the simultaneous submission of up to 10 sequences.

"Accordingly, in most cases, ***up to ten (10) independent and distinct nucleotide sequences will be examined in a single application without restriction***. It has been determined that normally ten sequences constitute a reasonable number for examination purposes. The PTO believes that allowing applicants to claim up to ten (10) independent and distinct nucleotide sequences in a single application will promote efficient, cost-effective examination of these types of applications." (emphasis added)

For the reasons set forth above, examination of the claims of Groups I, II and V are earnestly solicited. If there are any questions concerning this Reply or the application in general, the Examiner is respectfully urged to telephone the undersigned agent so that prosecution may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: Julie L. Heinrich
Julie L. Heinrich
Registration No. 48,070

P.O. Box 1404
Alexandria, Virginia 22313-1404
(650) 622-2300

Date: October 12, 2001